

**Table 2-1**  
**Groundwater and Surface Water Monitoring Program Summary (Field, Calculated, and Laboratory)**

Constituent	Units	Preservative	Sample Volume <sup>2</sup>	Container Type	Method <sup>3</sup>	Hold Time	Type of Sample	Sampling Frequency	Reporting Frequency
Depth to Groundwater	+/- 0.01	NA	NA	NA	NA	NA	Measurement	Quarterly	Quarterly
Groundwater Elevation <sup>1</sup>	+/- 0.01	NA	NA	NA	NA	NA	Calculated	Quarterly	Quarterly
PH	pH Units	Unpreserved/Field Analysis	NA	NA	NA	NA	Grab	Quarterly	Quarterly
Specific Conductance	µS/cm	Unpreserved/Field Analysis	NA	NA	NA	NA	Grab	Quarterly	Quarterly
Oxidation Reduction Potential	mV	Unpreserved/Field Analysis	NA	NA	NA	NA	Grab	Quarterly	Quarterly
Temperature	°C	Unpreserved/Field Analysis	NA	NA	NA	NA	Grab	Quarterly	Quarterly
Nitrate and Nitrite as Nitrogen	mg/L	Unpreserved	500 ml	Poly	300.0	48 Hrs.	Grab	Quarterly	Quarterly
Total Kjeldahl Nitrogen	mg/L	H <sub>2</sub> SO <sub>4</sub>	500 ml	Poly	351.4	28 Days	Grab	Quarterly	Quarterly
Total Dissolved Solids	mg/L	Unpreserved	250 ml	Poly	160.1	7 Days	Grab	Quarterly	Quarterly
Total Coliform Organisms	MPN/100ml <sup>4</sup>	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>	100 ml	Bacti.	SM 9221 B/E	6 Hrs.	Grab	Quarterly	Quarterly
δ <sup>18</sup> O and δ <sup>2</sup> H	Permil	Unpreserved <sup>7</sup>	100 ml	Poly	Isotope MS	6 Months	Grab	Quarterly	Quarterly
Dissolved As, Ba, Cr	mg/L	* HNO <sub>3</sub> <sup>7</sup>	500 ml	Poly	**	6 Months	Grab	Quarterly	Quarterly
Total Organic Carbon	mg/L	HCl/Dark	120 ml	Glass VOAs	415.1	28 Days	Grab	Quarterly	Quarterly
Standard Minerals <sup>5</sup>	mg/L	* HNO <sub>3</sub> /Unpreserved <sup>7</sup>	500 ml(HNO <sub>3</sub> )/ 500 ml (Unpreserved)	Poly	**	***	Grab	Quarterly <sup>6</sup>	Quarterly <sup>6</sup>

1. Groundwater elevation shall be determined based on depth-to-water measurements from a surveyed measuring point elevation on the well (north quadrant of the PVC well casing).

2. Actual sample volumes may vary between laboratories. The volumes listed should be viewed as approximate and confirmed with the analytic laboratory performing the analysis prior to sampling.

3. EPA and Standard Methods (SM) listed provide a basis for appropriate laboratory methodologies for the respective monitored parameters. New or revised methods or equivalent standard methods may be substituted for the methods listed should they provide similar or better practical quantification limits and/or as recommended by the analytic laboratory.

4. MPN/100ml denotes Most Probable Number per 100 ml.

5. Standard minerals include at least the following compounds: boron, calcium, iron, magnesium, manganese, potassium, silica, sodium, chloride, sulfate, total alkalinity (including alkalinity series), and hardness.

6. Standard minerals shall be monitored quarterly for the first eight sampling events; then the sampling and reporting frequency shall be reduced to annually.

7. All water samples collected for metals and stable isotope analysis will be filtered using a maximum 0.45 micron filter prior to any required preservation.

\* HNO<sub>3</sub> for metals and hardness, no preservative for other analytes.

\*\* EPA method 200.7 for barium, boron, calcium, iron, magnesium, manganese, potassium, silica, and sodium. EPA method 206.2 for arsenic. EPA method 130.2 for hardness. EPA method 310.1 for alkalinity series. EPA method 300.0 for chloride and sulfate.

\*\*\* 6 months for metals and hardness, 14 days for alkalinity series, and 28 days for chloride and sulfate.

NA – Not Applicable